

and/or related disorders in a patient, and wherein the food products comprise one or more of the following:

- 1) protein of about  $25\% \pm 5\%$  of total daily caloric intake of the patient;
- 2) monounsaturated fat of about  $25\% \pm 5\%$  of total daily caloric intake of the patient;
- 3) saturated fat of about  $5\% \pm 5\%$  of total daily caloric intake of the patient;
- 4) polyunsaturated fat of about  $3\% \pm 5\%$  of total daily caloric intake of the patient; and
- 5) complex carbohydrate of about  $42\% \pm 7\%$  of total daily caloric intake of the patient.

In another embodiment, the invention contemplates an article of manufacture comprising packaging material and one or more food products contained within the packaging material, wherein the food products are effective for increasing central dopamine to norepinephrine activity ratio (Stage 2 of the above dietary regimen). The packaging material comprises a label which indicates that the food products can be used for treating the metabolic syndrome and/or related disorders in a patient, and wherein the food products comprise one or more of the following:

- 1) protein of about  $24\% \pm 5\%$  of total daily caloric intake of the patient;
- 2) monounsaturated fat of about  $23\% \pm 5\%$  of total daily caloric intake of the patient;
- 3) saturated fat of about  $5\% \pm 5\%$  of total daily caloric intake of the patient;
- 4) polyunsaturated fat of about  $3\% \pm 5\%$  of total daily caloric intake of the patient;
- 5) complex carbohydrate of about  $45\% \pm 5\%$  of total daily caloric intake of the patient;
- 6) L-DOPA-containing food in an amount sufficient to ingest about 20-400, and more preferably about 20-300 mg. of L-DOPA per day.

In either embodiment of the articles of manufacture recited above, the polyunsaturated fat may, further comprise a ratio of omega-3 to omega-6 polyunsaturated fatty acids from between about 0.25:1 to about 2:1.

As an alternative embodiment, the packaged food products may contain only part (e.g., one, two, or three) of the above-recited components with instructions for the patient to consume or obtain the remaining components from other sources (e.g., regular food). However, the total caloric value of the food products, in combination with regular food (if any), is approximately 0-25% less, and more preferably, 0-20% less, than the patient's daily energy expenditure.

In the above packaged food product embodiments, the present invention also contemplates including instructions on the label informing the purchaser how to consume the packaged food products in order to derive benefit from the dietary regimen.

The present invention is further described in detail by means of the following Example. All parts and percentages are by weight, and all temperatures are degrees Celsius unless explicitly stated otherwise.

#### Example

Patients suffering from obesity or a related disorder such as hyperinsulinemia, insulin resistance, diabetes, hypertension, dyslipidemia, or metabolic syndrome are subjected to the following treatment program:

1. Obtain medical history of patient;
2. Conduct physical exam;
3. Calculate daily energy expenditure;
4. Determine ideal body weight;

5. Conduct blood work to determine the neuroendocrine status of the patient;

6. Devise Stage 1 nutritional plan and describe to patient;

7. Provide pre-packaged meals and/or recipes to patient to achieve Stage 1 nutritional goals;

8. Conduct weekly follow-up of patient compliance and general health;

9. Conduct blood work to determine response to Stage 1 nutritional plan, readiness for initiation of Stage 2 plan, and improvements in metabolic syndrome (e.g., changes in plasma glucose, insulin, total cholesterol, LDL cholesterol, and free fatty acid levels, body weight and blood pressure);

10. Provide pre-packaged meals and/or recipes to patient to achieve Stage 2 nutritional goals;

11. Conduct bi-weekly follow-up of subject compliance and general health;

12. Conduct blood work to evaluate the improvement to the neuroendocrine axis and metabolism; and

13. Conduct physical exam to evaluate improvement to general health and test for improvement in metabolic syndrome parameters.

Patients following the above regimen should observe gradual improvement in metabolism and a reduction in the symptoms of the metabolic syndrome, obesity, and Type 2 diabetes.

While the invention has been described in combination with embodiments thereof, it is evident that many alternatives, modifications and variations will be apparent to those skilled in the art in light of the foregoing description. Accordingly, it is intended to embrace all such alternatives, modifications and variations as fall within the spirit and broad scope of the appended claims. All patent applications, patents, and other publications cited herein are incorporated by reference in their entireties.

What is claimed is:

1. A method of treating a patient suffering from a condition selected from the group consisting of metabolic syndrome, obesity, type 2 diabetes, pre-diabetes, hypertension, dyslipidemia, insulin resistance, endothelial dysfunction, pro-inflammatory state, and pro-coagulative state, comprising the steps of:

(a) providing to said patient suffering from a condition selected from the group consisting of metabolic syndrome, obesity, type 2 diabetes, pre-diabetes, hypertension, dyslipidemia, insulin resistance, endothelial dysfunction, pro-inflammatory state, and pro-coagulative state a dietary regimen that decreases overactive CNS noradrenergic tone;

wherein said dietary regimen that decreases overactive CNS noradrenergic tone comprises:

- 1) protein intake of about  $25\% \pm 5\%$  of total daily caloric intake;
  - 2) monounsaturated fat intake of about  $25\% \pm 5\%$  of total daily caloric intake;
  - 3) saturated fat intake of about  $5\% \pm 5\%$  of total daily caloric intake;
  - 4) polyunsaturated fat intake of about  $3\% \pm 5\%$  of total daily caloric intake;
  - 5) complex carbohydrate intake of about  $42\% \pm 7\%$  of total daily caloric intake; and
  - 6) total caloric intake set at 15-25% less than the said patient's daily energy expenditure; followed by
- (b) providing to said patient a dietary regimen that increases dopaminergic tone while maintaining said decreased overactive CNS noradrenergic tone;